moment did he observe in his first case even the slightest indication of contraction or twitching on the opposite side. When the area was exposed, Dr. Da Costa found on the side exposed some blood vessels which resembled very much angiomatous veins, but the cortex itself was intact. There was no autopsy in the case, no microscopical examination, no examination of the medulla, but Dr. Gordon did not see how otherwise could be explained the response on the same side than by want of decussation. Dr. Gordon stated that he had put the indifferent pole on the chest and before he transferred the electrode to the brain he tested the strength of the current with his hands, and he obtained a slight tingling sensation and only this current he employed for the experiment. There were extremely slight movements of the fingers. The same strength of current was used in the second case where the patient had normal contractions.

Dr. J. W. McConnell asked if Dr. Gordon had ever taken notice how much less this current is perceived when it is tested on the hand than when it is tested on some more sensitive part, for instance the lip. In many of the University Hospital cases of Dr. Mills they tested on the lip, and a current that was just perceptible to the lip was the current used.

PRESERVATION OF THE SENSATION OF PRESSURE IN THE FACE AFTER DESTRUCTION OF THE TRIGEMINAL NERVE.

By Messrs. R. H. Ivy and L. W. Johnson.

This paper is concerned with the conduction of sensory impulses from the face to the sensorium, and especially the conduction of deep pressure sensibility as contrasted with that of cutaneous sensibility to light touch, temperature, and pain sense. Up to a comparatively recent period it was considered that all sensory impulses of the face were carried by way of the fifth nerve, while the seventh nerve was concerned solely in the motor supply of the muscles to which it runs. Recently, however, the opinion has been gaining ground that while the fifth nerve conveys impulses of light touch, pain, and temperature sensations from the skin of the areas of its distribution, deep or pressure sensibility is conveyed by afferent fibers running in the motor nerve to the muscles, viz., the seventh nerve, except in the case of those muscles supplied with motor fibers by the fifth nerve. To support this view two cases studied by the writers and one case by the writers in association with Dr. Spiller, are reported, in which pressure sensibility was retained in the trigeminal area of the face after lesions completely destroying the Gasserian ganglion. These investigations have an important bearing upon the surgery of the fifth nerve. It has been noticed that after operation on the Gasserian or the sensory root of the fifth nerve, some sensation has been retained in the side of the face supplied by the nerve operated upon, at times giving rise to the assumption that the operation was imperfect. The subject is important also, because after surgical intervention on the fifth nerve a certain form of sensation may be preserved, so that there is not complete anesthesia, even with complete destruction of the fifth nerve.

Conclusions: The fifth nerve conveys sensibility to light touch, pain and changes in temperature from those parts generally recognized as being within the area of distribution of the said nerve. The seventh nerve contains fibers of deep or pressure sensibility running from the muscles which it supplies with motor fibers. The muscles of mastication which derive their motor supply from the fifth nerve, probably are also furnished with fibers of deep sensation by that nerve.

Dr. Spiller said he thought Drs. Ivy and Johnson deserved much credit for the work they had done. During one of his lectures he had invited the students of the Fourth Year Class to report this case and Drs. Ivy and Johnson had responded.

Dr. Spiller remarked that the deep sensation of the facial nerve may be temporarily interfered with by operation on the trigeminal nerve. Twisting out peripheral branches of the latter causes much swelling of the face, and probably thereby, some impairment of function of the facial nerve. Excision of the Gasserian ganglion causes swelling of the axis cylinders and meduallary sheaths of the peripheral branches of the trigeminal nerve, and if these are intimately associated with branches of the facial nerve, this swelling also may interfere temporarily with the function of the latter. Destruction of the sensory root of the trigeminal nerve by a tumor affords better opportunity for testing the sensation of the face, than does destruction of some part of this nerve by operation, at least in the period immediately following operation.